List of Claims:

1. (Currently Amended) A process for reforming a hydrocarbon feed containing precursors of ethylbenzene to produce a reformate having increased xylenes content and reduced ethylbenzene content, said process comprising:

   contacting said feed with a reforming catalyst under conditions effective to reform said feed to form an effluent comprising ethylbenzene; wherein said reforming catalyst is contained in a reactor which contains a second catalyst effective under said conditions to convert at least 25% of said ethylbenzene to xylenes.

2. (Original) The process recited in Claim 1, wherein said precursors of ethylbenzene are selected from the group consisting of C_8 isoalkane precursors of ethylbenzene, C_8 isoalkene precursors of ethylbenzene, and mixtures thereof.

3. (Original) The process recited in Claim 1, wherein said precursors of ethylbenzene are selected from the group consisting of ethyl-cyclohexane, ethyl-cyclohexenes, 3-ethylhexane, 3-ethylhexenes, 3-ethylhexadienes, 3-ethylhexatriene, 3-methylheptane, 3-methylheptenes, 3-methylheptadienes, 3-methylheptatrienes, octane, octenes, octadienes, octatrienes, octatetraenes, and mixtures thereof.

4. (Original) The process recited in Claim 1, wherein said precursors of ethylbenzene are present in said hydrocarbon feed in an amount from about 1 to about 10 weight percent based on the weight of said hydrocarbon feed.

5. (Currently Amended) The process recited in Claim 1, wherein at least 40[[25]] percent of said ethylbenzene formed during the reforming of said feed is converted.

6. (Original) The process recited in Claim 1, wherein said hydrocarbon feed comprises 5-205°C naphtha.

7. (Original) The process recited in Claim 1, wherein said precursors of ethylbenzene are present in said hydrocarbon feed in an amount from about 1 to about 5 weight percent based on the weight of said hydrocarbon feed.

8. (Original) The process recited in Claim 1, wherein said reforming catalyst is a bifunctional catalyst.

9. (Original) The process recited in Claim 1, wherein said reforming catalyst is a monofunctional catalyst.

10. (Original) The process recited in Claim 9, wherein said monofunctional catalyst has a structure selected from the group consisting of LTL, FAU, *BEA, AEL, PAU, MAZ, MFI, MEL, MTW, OFF, EMT, MOR, MFS, EUO, MTT, HEU, FER, TON, and AFI.

11. (Original) The process recited in Claim 9, wherein said monofunctional catalyst is selected from the group consisting of Silicalite, Silicalite 2, ALPO-5, zeolite L, zeolite X, zeolite Beta, zeolite Y, ETAS-10, ETGS-10, and ETS-10.

12. (Original) The process recited in Claim 11, wherein said hydrocarbon feed contains C_6-C_8 hydrocarbons.

13. (Original) The process recited in Claim 12, wherein said monofunctional catalyst is zeolite L and at least one Group VIII metal.

14. (Original) The process recited in Claim 13, wherein said at least one Group VIII metal is platinum.

15. (Original) The process recited in Claim 1, wherein said reforming is carried out at a temperature from about 300°C to about 600°C, a pressure from about 446 kPa to about 3,549 kPa, a mole ratio of hydrogen to hydrocarbons from 0.1:1 to 10:1 and a liquid hour space velocity of between 0.1 and 20.

16. (Original) The process recited in Claim 1, wherein said second catalyst comprises an intermediate pore size molecular sieve.

17. (Original) The process recited in Claim 16, where said second catalyst has a structure selected from the group consisting of AEL, AFO, AHI, DAC, EPI, FER, HEU, LAU, MFI, TON, MTT, NES, MEL, EUO, and MFS.

18. (Original) The process recited in Claim 16, where said second catalyst is selected from the group consisting of ZSM-5, ZSM-11, ZSM-22, ZSM-23, ZSM-48, ZSM-50, ZSM-57, ZSM-58, EU-1, NU-87, SAPO-11, and SAPO-41.

19. (Original) The process recited in Claim 18, where said second catalyst has unidimensional 10-membered ring pores.

20. (Original) The process recited in Claim 16, wherein said second catalyst is selectivated to produce a product containing greater than equilibrium amounts of para-xylene based on the total weight of xylenes present in said product.

21. (Original) The process recited in Claim 20, wherein said second catalyst is selectivated using an organosilicon compound.

22. (Original) The process recited in Claim 17, wherein at least 50 weight percent of the ethylbenzene formed during the reforming of the feed is converted.

23. (Original) The process recited in Claim 16, where said second catalyst further comprises at least one dehydrogenation/hydrogenation metal.

24. (Original) The process recited in Claim 16, where said second catalyst further comprises a binder comprising particles of molecular sieve.

25. (Original) The process recited in Claim 16, wherein said second catalyst has an alpha less than about 50.

26. (Original) The process recited in Claim 16, wherein said second catalyst is an aluminosilicate zeolite or gallosilicate molecular sieve.

27. (Original) The process recited in Claim 16, wherein said second catalyst is selected from the group consisting of SAPO-11, ZSM-23, ZSM-22, NU-87, ZSM-11, ZSM-50, ZSM-57, SAPO-41, and ZSM-48.

28. (Original) The process recited in Claim 27, wherein the product of said process contains greater than an equilibrium amount of para-xylene based on the total weight of xylenes present in the product.

29. (Original) The process recited in Claim 1, wherein said reactor is present in a catalytic reforming unit comprised of at least two operatively connected reactors.

30. (Original) The process recited in Claim 1, wherein the reformate is cascaded over said second catalyst.

31. (Currently Amended) A process for producing a reformate having reduced ethylbenzene content and increased xylenes content, said process comprising:

contacting a hydrocarbon feed comprising C_5-205°C naphtha containing C_8 isoalkane precursors of ethylbenzene, C_8 isoalkene precursors of ethylbenzene, or mixtures thereof with a reforming catalyst under conditions effective to reform said feed to form an effluent comprising ethylbenzene; wherein said reforming catalyst is contained in a reactor which contains a second catalyst effective under said conditions to convert at least 25% of said ethylbenzene to xylenes.

32. (Original) The process recited in Claim 1, wherein a second catalyst comprises ZSM-5.

33. (Original) The process recited in Claim 32, wherein said ZSM-5 is selectivated using an organosilicon compound to produce greater than equilibrium amounts of para-xylene versus the other xylene isomers.

34. (Original) The process recited in Claim 31, wherein said reforming catalyst is a bifunctional catalyst.

35. (Original) The process recited in Claim 31, wherein said reforming catalyst is a monofunctional catalyst.

36. (Original) The process recited in Claim 33, wherein the resulting product contains greater than equilibrium amounts of para-xylene based on the total weight of xylenes present in said product.

37. (Original) The process recited in Claim 31, wherein at least 50 percent of the ethylbenzene converted is converted to xylenes.